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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/714,621	11/18/2003	Woo Sok Kang	SI-0050	3265
34610 7590 12/10/2008 KED & ASSOCIATES, LLP P.O. Box 221200 Chantilly, VA 20153-1200				
EXAMINER PHUONG, DAI				
ART UNIT 2617		PAPER NUMBER		
MAIL DATE 12/10/2008		DELIVERY MODE PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/714,621

Applicant(s)

KANG ET AL.

Examiner

DAI A. PHUONG

Art Unit

2617

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 August 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1, 2, 4-16 and 19-33 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 1-2, 4-16, 19-25 and 26-33 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SF-08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

1. This Office Action is response to amendment filed on 08/14/2008. Claims 31-33 have been added. Claims 1-2, 4-16, 19-25 and 26-33.

Election/Restrictions

2. Restriction to one of the following inventions is required under 35 U.S.C. 121:

I. Claims 1-2, 4-5,7-8, 13, 20-21, 23-25 and 27 drawn to a method for increasing use time of a battery of a mobile station (MS) of a communication system, comprising: identifying a use of the MS based on subscriber information stored in a network circuit, said identifying being performed by the network circuit or another network circuit; determining a slot cycle index value for the MS based on said use; transmitting the slot cycle index value to the MS; setting the slot cycle index value in the MS; and retrieving slots of a paging channel in the MS according to the set slot cycle index value, wherein said retrieving includes: computing a retrieval period for a paging channel as follows:

$$\text{Retrieval Period} = N * 2sci * T$$

where N is a first constant value, SCI corresponds to the set slot cycle index value, and T is a second constant value equal to a predetermined slot period, classified in class 455 and subclass 343.1.

II. Claims 6, 9-12 and 31-32 drawn to determining a slot cycle index value for the MS based on said use; transmitting the slot cycle index value to the MS; setting the slot cycle index value in the MS; and retrieving slots of a paging

channel in the MS according to the set slot cycle index value, wherein said retrieving the slots of the paging channel comprises:

comparing the slot cycle index value transmitted based on the identified use with a slot cycle index value previously set in the MS; choosing a smaller value; and

retrieving the slots of the paging channel as the MS transitions from a sleep state to an active state according to the chosen slot cycle index value, classified in class 455 and subclass 343.2.

III. Claims 14-16, 19 and 28-30 drawn a method determine a slot cycle index value for the first mobile station based on the use of the first mobile station determined in (b); determining a slot cycle index value for the second mobile station based on the use of the second mobile station determined in (b); transmitting the slot cycle index values to the first and second mobile stations; and setting slot cycle index values in the first and second mobile stations according to the uses, wherein the use of the first mobile station corresponds to servicing a voice call and the use of the second mobile station is different from servicing a voice call, classified in class 455 and subclass 343.3.

IV. Claims 22 and 33 a method determine a slot cycle index value for the MS based on said use; transmitting the slot cycle index value to the MS; setting the slot cycle index value in the MS; and retrieving slots of a paging channel in the MS according to the set slot cycle index value, wherein said use is a position-

tracing use performed by the MS, the slot cycle index value corresponding to said position-tracing use having a value larger than a slot cycle index value that corresponds to a use that requires real-time reception of paging messages, classified in class 455 and subclass 343.4.

Inventions I, II, III and IV are related as subcombinations disclosed as usable together in a single combination. The subcombinations are distinct if they do not overlap in scope and are not obvious variants, and if it is shown that at least one subcombination is separately usable.

In the instant case, **subcombination I** has separate utility such as requiring computing a retrieval period for a paging channel as follows:

$$\text{Retrieval Period} = N * 2^{\text{sci}} * T$$

In the instant case, **subcombination II** has separate utility such as retrieving the slots of the paging channel comprises: comparing the slot cycle index value transmitted based on the identified use with a slot cycle index value previously set in the MS; choosing a smaller value.

In the instant case, **subcombination III** has separate utility such as determining a slot cycle index value for the second mobile station based on the use of the second mobile station determined; and wherein the use of the first mobile station corresponds to servicing a voice call and the use of the second mobile station is different from servicing a voice call

In the instant case, **subcombination IV** has separate utility such as determining a slot cycle index value for the MS based on said use; and wherein said use is a position-tracing use performed by the MS. See MPEP § 806.05(d).

The examiner has required restriction between subcombinations usable together. Where applicant elects a subcombination and claims thereto are subsequently found allowable, any

claim(s) depending from or otherwise requiring all the limitations of the allowable subcombination will be examined for patentability in accordance with 37 CFR 1.104. See MPEP § 821.04(a). Applicant is advised that if any claim presented in a continuation or divisional application is anticipated by, or includes all the limitations of, a claim that is allowable in the present application, such claim may be subject to provisional statutory and/or nonstatutory double patenting rejections over the claims of the instant application.

Because these inventions are independent or distinct for the reasons given above and there would be a serious burden on the examiner if restriction is not required because the inventions have acquired a separate status in the art due to their recognized divergent subject matter, restriction for examination purposes as indicated is proper.

1. A telephone call was made to the Applicant's attorney to request an oral election to the above restriction requirement, but the examiner was unable to reach the attorney.
2. Application is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143)
3. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).
4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dai A Phuong whose telephone number is 571-272-7896. The examiner can normally be reached on Monday to Friday, 9:00 A.M. to 5:00 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Alexander Eisen can be reached on 571-272-7687. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Dai A Phuong/
Examiner, Art Unit 2617
Date: 12/03/2008

/Alexander Eisen/
Supervisory Patent Examiner, Art Unit 2617